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GenCore version 5.1.6
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June 17, 2005, 16:05:55 ; Search time 66.8904 Seconds (without alignments) 109.858 Million cell updates/sec Run on:

US-09-719-379A-1 105 1 RSDYKFYEAANGTRDHKKG 19

Perfect score: Sequence: BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

2105692 segs, 386760381 residues Searched:

2105692 Total number of hits satisfying chosen parameters:

seq length: 0 seq length: 200000000 88 Minimum | Maximum | Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database :

A_Geneseq_16Deco4:*
1: geneseqp1980s:*
2: geneseqp2000s:*
3: geneseqp2001s:* geneseqp2003as: * geneseqp2002s:* geneseqp2004s:* Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

		d			SUMMARIES	
βŽ	Score	Query Match	Query Match Length	DB	ID	U
	105	100.0	19	m	AAY79959	Aay79959 Non-typea
~	105	100.0	7	٣	AAY79987	Aay79987 Non-typea
٣	101	96.2	19	e	AAY79960	-
4	100	95.2	19	٣	AAY79961	
Ŋ	66	94.3	19	m	AAY79982	Aay79982 Non-typea
9	66	94.3	19	٣	AAY79991	
7	66	94.3	19	m	AAY79955	
80	66	94.3	19	4	AAB47439	
σ	66	94.3	20	m	AAB20881	Aab20881 LB1gr1 pe
10	66	94.3	28	4	AAB47443	
11	66	94.3	40	~	AAW67581	Aaw67581 Synthetic
12	66	94.3	40	ო	AAY79986	
13	66	94.3	40	9	ADA25172	Ada25172 Chimeric
14	66	94.3	40	7	ADC89661	Adc89661 H. influe
15	66	94.3	359	7	AAR66294	Aar66294 Non-typab
16	66	94.3	464	٣	AAY79993	Aay79993 Plasmid L
17	96	91.4	19	m	AAY79957	Aay79957 Non-typea
18	95	90.5	19	m	AAY79963	m
19	94	89.5		m	AAY79958	
20	94	89.5	19	m	AAY79956	
21	93	88.6		7	AAW67572	
22	93	98.6	18	9	ADA25163	Ada25163 H. influe
23	91	86.7		ო	AAY79967	Aay79967 Non-typea
24	91	86.7	19	ᠬ	AAY79968	Aay79968 Non-typea
25	90	85.7	19	m	AAY79973	Aay79973 Non-typea

Aay79970 Non-typea Aay79962 Non-typea Aay79962 Non-typea Aay79965 Non-typea Aay79971 Non-typea Aay79964 Non-typea Aay79964 Non-typea Aay79969 Non-typea Aay79969 Non-typea Aay79969 Non-typea Aay79972 Non-typea Aay79972 Non-typea Aay79972 Non-typea Aay79972 Non-typea Aay79973 Arabidops Aag45886 Arabidops Aag45881 Arabidops Aag45881 Arabidops Aag45881 Arabidops Aag45881 Arabidops Aag45881 Arabidops Aag45881 Arabidops	
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ALIGNMENTS

Vaccine; non-typeable Haemophilus influenzae; ntHi; infection; chimeric protein; Hemophilus influenzae; PS-like fimbrin protein; lipoprotein D; LBI(f); immunogenic; antigenic; otitis media; sinusitis; conjunctivitis; lower respiratory tract infection. Non-typeable H. influenzae group 1 LB1(f) peptide N10567RM. Ŕ AAY79959 standard; peptide; 19 15-MAY-2000 (first entry) AAY79959; RESULT 1

Haemophilus influenzae.

W09964067-A2

16-DEC-1999.

99WO-US011980. 28-MAY-1999;

98GB-00012613 11-JUN-1998; (SMIK) SMITHKLINE BEECHAM BIOLOGICALS. (OHIS) UNIV OHIO STATE RES FOUND.

Lobet Y;

Dequesne G,

Cohen J,

Bakaletz LO,

WPI; 2000-116457/10.

Novel antigenic P5-like fimbrin subunit peptides used in vaccines against Haemophilus influenza.

Example 1; Page 29; 68pp; English.

The present invention describes antigenic P5-like fimbrin subunit peptides (LB1(f) peptides) of P5-like fimbrin proteins from various Haemophilus influenzae strains. The peptides are used for diagnosis, prevention, and treatment of Haemophilus influenzae infections, such as otitis media, sinusitis, conjunctivitis, or lower respiratory tract infection. The peptides may also be used in vaccines against H. influenzae. Antibodies and probes from the present invention can be used for diagnosis of H. influenzae infection. AAX79955 to AAX79993, and AAZ91201 to AAZ91252, represent sequences used in the exemplification of the present invention

Matches

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RESULT 2 AAY79987

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Novel antigenic P5-like fimbrin subunit peptides used in vaccines against Haemophilus influenza.
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                                                                                                                        Vaccine, non-typeable Haemophilus influenzae, ntHi; infection, chimeric protein, Haemophilus influenzae, P5-like fimbrin protein; lipoprotein D; LB1(f); immunogenic; antigenic; otitis media; sinusitis; conjunctivitis; lower respiratory tract infection.
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                                                                                       Non-typeable H. influenzae group 1 LB1(f) peptide N86027NP.
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Pred. No. 1.9e-10;
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                                                     (first entry)
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               AAY79960;
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Haemophilus influenza.
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Pred. No. 3.8e-11;
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                                                                                                                                    Claim 2; Page 46; 68pp; English.
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100.0%;
Best Local Similarity 100.0%;
Matches 19; Conservative 0
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                                                                                                                                                                                                                                                                                                                         (first entry)
                                               Local Similarity 100.
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Gaps

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AAY79960 standard; peptide; 19 AA

AAY79960 ID AAY7 RESULT 3

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antigenic P5-like fimbrin subunit peptides used in vaccines against
                                                                                           The present invention describes antigenic P5-like fimbrin subunit peptides (LB1(f) peptides) of P5-like fimbrin proteins from various Haemophilus influenzae strains. The peptides are used for diagnosis, prevention, and treatment of Haemophilus influenzae infections, such as otitis media, sinusitis, conjunctivitis, or lower respiratory tract infection. The peptides may also be used in vaccines against H. influenzae. Antibodies and probes from the present invention can be used for diagnosis of H. influenzae infection. AAY79955 to AAY79993, and the AAS21201 to AAS2122, represent sequences used in the exemplification of
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                                                              Example 1; Page 30; 68pp; English
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                                 Haemophilus influenza.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 RSDYKFYEAANGTRDHKKG 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAY79982 standard; peptide; 19
                                                                99WO-US011980
                                                                                                98GB-00012613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98GB-00012613
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 94.7%;
Matches. 18; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                            Bakaletz LO, Cohen J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Bakaletz LO, Cohen J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Haemophilus influenzae
                                                                                                                                                                                                                                                               Haemophilus influenza.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            the present invention
                                                                                                                                                                                                              WPI; 2000-116457/10.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 19 AA;
 WO9964067-A2
                                                              28-MAY-1999;
                                                                                              11-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         W09964067-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       28-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         11-JUN-11998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           15-MAY-2000
                              16-DEC-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAY79982;
                                                                                                                                              OHIS
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Gaps

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The sequences given in AAB47439-46 represent peptides which may be used to replace one or more surface exposed loops of major outer membrane protein PS (MOMP PS) of non-typeable H. influenzae (ntHi). Each of these peptides contain an LBI (i) peptide which is a 19 amino acid peptide derived from the sequence of MOMP PS from strain ntHill28, representing amino acids Argll to Gly135. This spepide represents the third exposed loop of PS and is a potential B cell epitope. The loops of the invention are modified in terms of being in a non-native environment in the recombinant outer membrane protein. The modified MOMP PS may be used to induce an immune response in a mammal to prevent or treat Haemophilus sinfluenzae infection or associated disease, e.g., otitis media, sinusitis, conjunctivitis, or lower respiratory tract infection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Recombinant bacterial outer membrane protein where one or more surface-exposed loops are modified is useful as a vaccine to prevent or treat Haemophilus influenzae infection or associated disease, e.g., otitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Immunoglobulin E; IgE; immunogenic; immunogen; Protein D; carrier;
                                                                                                                                                                                                     surface exposed loop; major outer membrane protein P5; MOMP P5;
non-typeable H. influenzae; ntHi, LB1(f) peptide; B cell epitope;
otitis media; sinusitis; conjunctivitis;
lower respiratory tract infection.
                                                                                                                                                              LB1(f) containing peptide from strain ntHi-1128 (Group 1 type).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 99; DB 4; I
Pred. No. 4.3e-10;
); Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Poolman J, Thonnard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (SMIK ) SMITHKLINE BEECHAM BIOLOGICALS.
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                                        AAB47439 standard; peptide; 19 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 1; Page 26; 29pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 RSDYKFYEAANGTRDHKKG 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAB20881 standard; peptide; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    94.3%;
94.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RSDYKFYEDANGTRDHKKG
                                                                                                                                                                                                                                                                                                                                                                                                                                      13-FEB-2001; 2001WO-EP001556.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              15-FEB-2000; 2000GB-00003502.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LB1gr1 peptide SEQ ID NO:19.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           media and conjunctivitis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                           Haemophilus influenzae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Berthet FJ, Denoel P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2001-522599/57.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 19 AA;
                                                                                                                                                                                                                                                                                                                                                    WO200161013-A1
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                                                                                                                       31-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                             23-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               18;
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                                                                                 AAB47439;
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  RESULT 8
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ID AAB3
XX
AC AAB3
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DT 03-6
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DE LB19
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KW Imm
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           antigenic P5-like fimbrin subunit peptides used in vaccines against
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               peptides (LBI(f) peptides) of P5-like fimbrin proteins from various haemophilus influenzae strains. The peptides are used for diagnosis, prevention, and treatment of Haemophilus influenzae infections, such as otitis media, sinusitis, conjunctivitis, or lower respiratory tract infection. The peptides may also be used in vaccines against H. Influenzae, Antibodies and probes from the present invention can be used for diagnosis of H. influenzae infection. ANY79955 to AAY7993, and AAZ91201 to AAZ91252, represent sequences used in the exemplification of
AAZ91201 to AAZ91252, represent sequences used in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Vaccine; non-typeable Haemophilus influenzae; ntHi; infection; chimeric protein, Haemophilus influenzae; P5-like fimbrin protein; lipoprotein D; LB1(f); immunogenic; antigenic; otitis media; sinusitis; conjunctivitis; lower respiratory tract infection.
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                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The present invention describes antigenic P5-like fimbrin subunit
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Pred. No. 4.3e-10;
0; Mismatches 1; Indels
                                                                                                    Score 99; DB 3; Length 19;
Pred. No. 4.3e-10;
                                                                                                                                             1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Non-typeable H. influenzae group 1 LB1(f) peptide N1128.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Lobet Y;
                                                                                                                                             0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (SMIK ) SMITHKLINE BEECHAM BIOLOGICALS. (OHIS ) UNIV OHIO STATE RES FOUND.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Dequesne G,
                                                                                                                                                                                                                                                                                                                                   AAY79955 standard; peptide; 19 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Example 1; Page 29; 68pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 RSDYKFYEDANGTRDHKKG 19
                                                                                                                                                                                                             1 RSDYKFYEDANGTRDHKKG 19
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                                                                                                                                                                                      1 RSDYKFYEAANGTRDHKKG 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 94.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99WO-US011980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98GB-00012613
                                                                                                    94.3%;
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Best Local Similarity 94.7
Matches 18; Conservative
                                                                                                                                             18; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Cohen J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Haemophilus influenzae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Haemophilus influenza.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2000-116457/10
                                                                                                                          Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 19 AA;
                                                              Sequence 19 AA;
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                                                                                                                                                                                                                                                                                                                                                                            AAY79955;
                                                                                                        Query Match
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Length 19; 1; Indels

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The sequences given in AAB47439-46 represent peptides which may be used to replace one or more surface exposed loops of major outer membrane protein PS (MOMP PS) of non-typeable H. influenzae (ntHi). Each of these peptides contain an LBI (i) peptide which is a 19 amino acid peptide derived from the sequence of MOMP PS from strain ntHill28, representing amino acids Argll7 to Gly15. This peptide represents the third exposed loop of PS and is a potential B cell epitope. The loops of the invention are modified in terms of being in a non-native environment in the recombinant outer membrane protein. The modified MOMP PS may be used to induce an immune response in a mammal to prevent or treat Haemophilus influenzae infection or associated disease, e.g., otitis media, sinusitis, conjunctivitis, or lower respiratory tract infection
                                                                                                                                                                                                                                                                                                                                           Recombinant bacterial outer membrane protein where one or more surface-exposed loops are modified is useful as a vaccine to prevent or treat Haemophilus influenzae infection or associated disease, e.g., otitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Chimeric; non-typable Haemophilus influenzae; fimbrin; T-cell epitope; immunogenic composition; immune response.
non-typeable H. influenzae; ntHi; LB1(f) peptide; B cell epitope; otitis media; sinusitis; conjunctivitis; lower respiratory tract infection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 28;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Synthetic chimer fimbrin/T-cell epitope peptide LB1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         94.3%; Score 99; DB 4; I
94.7%; Pred. No. 6.8e-10;
ive 0; Mismatches 1;
                                                                                                                                                                                                                                                                           Thonnard J;
                                                                                                                                                                                                                                           (SMIK ) SMITHKLINE BEECHAM BIOLOGICALS.
                                                                                                                                                                                                                                                                             Poolman J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAW67581 standard; peptide; 40 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 2; Page 26; 29pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 RSDYKFYEAANGTRDHKKG 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RSDYKFYEDANGTRDHKKG 21
                                                                                                                                                                        13-FEB-2001; 2001WO-EP001556.
                                                                                                                                                                                                         15-FEB-2000; 2000GB-00003502
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                                                                                                                                                                                                                                                                                                                                                                                                media and conjunctivitis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                             Berthet FJ, Denoel P,
                                                                     Haemophilus influenzae
                                                                                                                                                                                                                                                                                                           WPI; 2001-522599/57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity
Matches 18; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 28 AA;
                                                                                                      WO200161013-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               02-JUN-1995;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               02-JUN-1995;
                                                                                                                                        23-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          immunogenic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US5843464-A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAW67581;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAW67581
     #X#XBX#X#X#X#X#X#X#X#
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The present invention describes an immunogen (1) comprising a peptide (Ia) and a carrier (Ib) derived from protein D of Haemophilus influenzae or its fragment. Also described are: (1) a vaccine comprising (1), and an excipient; (2) preparation of (1), comprising conjugating a peptide to protein D or its fragment; and (3) preparation of a vaccine of (1), on comprising formulating (1) with an excipient. (1) has cytostatic, antiallergic, nootropic, neuroprotective and protozoacide activities and the vaccine are useful for the manufacture of a medicament for preventing and treating infectious diseases such as malaria or chronic disease such as cancer, Alzheimer's disease or allergy in a patient. Uhlike prior art immunogens, (1) induces high levels of antipeptide immune responses while inducing a mederate humoral response against the carrier. The present sequence represents an IBH3rl peptide which was coupled through an additional C-terminal cysteine via maleimide to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Immunogens and vaccine comprising the immunogen useful for preventing and treating infectious diseases e.g. malaria and chronic disease e.g. cancer, comprises peptide and carrier from protein D of influenzae.
prostate cancer, Haemophilus influenzae, vaccine, infectious disease, malaria, cytostatic, antiallergic, nootropic, neuroprotective, protozoacide, Alzheimer's disease, allergy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                surface exposed loop; major outer membrane protein P5; MOMP P5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pred. No. 4.6e-10;
0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Entire 3rd loop from strain ntHi-1128 (Group 1 type)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  protein D in an example from the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                Verriest C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 94.3%; Score 99; Best Local Similarity 94.7%; Pred. No. Matches 18; Conservative 0; Mismatcl
                                                                                                                                                                                                                                                                                                                                                                                              (SMIK ) SMITHKLINE BEECHAM BIOLOGICALS.
                                                                                                                                                                                                                                                                                                                                                                                                                                Van-Mechelen MP,
                                                                                                                                    'note= "acetylated"
                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Example 14; Page 34; 53pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAB47443 standard; peptide; 28 AA
                                                                                                                                                                        /note= "amidated"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 RSDYKFYEAANGTRDHKKG 19
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                                                                                                                                                                                                                                                                                                         99GB-00004405.
99GB-00004408.
99GB-00004412.
99GB-00019260.
                                                                                                                                                                                                                                                                         22-FEB-2000; 2000WO-EP001457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2000-572040/53.
                                                                                                                                                                                                                                                                                                                                                                                                                                Lobet Y,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 20 AA;
                                                                                                                                                                                                        WO200050077-A1
                                                                                                      Key
Modified-site
                                                                                                                                                      Modified-site
                                                                                                                                                                                                                                                                                                                             25-FEB-1999;
25-FEB-1999;
                                                                                                                                                                                                                                                                                                             25-PEB-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           31-OCT-2001
                                                                                                                                                                                                                                                                                                                                                              13-AUG-1999
                                                                                                                                                                                                                                         31-AUG-2000
                                                                     Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAB47443;
                                                                                                                                                                                                                                                                                                                                                                                                                                  Coste M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 10
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Gaps

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prevention, and treatment of Haemophilus influenzae infections, such as ortitis media, sinusitis, conjunctivitis, or lower respiratory tract infection. The peptides may also be used in vaccines against H. influenzae. Antibodies and probes from the present invention can be used for diagnosis of H. influenzae infection. AAY79955 to AAY79993, and AAZ91201 to AAZ91252, represent sequences used in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  peptide is useful for treating a non-typable Haemophilus influenzae (NTH1) infection and otilis media. The synthetic peptides do not require tedious purification techniques. The present sequence represents the amino acid sequence of the chimeric fimbrin peptide LB1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Synthetic chimeric fimbrin peptide, useful for treating Haemophilus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The invention relates to a synthetic chimeric fimbrin peptide. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             fimbrin; non-typable Haemophilus influenzae; NTHi infection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      94.3%; Score 99; DB 6; Length 40; 94.7%; Pred. No. 1e-09; ive 0; Mismatches 1; Indels
                                                                                                                                                                                                                    Length 40
                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                    Score 99; DB 3;
Pred. No. 1e-09;
                                                                                                                                                                                                                                                           0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                        ADA25172 standard; peptide; 40 AA
                                                                                                                                                                                                                                                                                               1 RSDYKFYEAANGTRDHKKG 19
                                                                                                                                                                                                                                                                                                                        1 RSDYKFYEDANGTRDHKKG 19
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 RSDYKFYEDANGTRDHKKG 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 10; Col 4; 16pp; English.
                                                                                                                                                                                                                    94.38;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98US-00148711.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          95US-00460502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Chimeric fimbrin peptide LB1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Kaumaya PTP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20-NOV-2003 (first entry)
                                                                                                                                                                                                                                                               18; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (OHIS ) UNIV OHIO STATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Haemophilus influenzae.
Measles virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        influenzae infections
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2003-615247/58.
                                                                                                                                                                                                                  Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 40 AA;
                                                                                                                                                                               Sequence 40 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 otitis media.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Bakaletz LO,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          02-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    04-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US6436405-B1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADA25172;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Chimeric.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Loca
Matches
                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                      ADA25172
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                                                                                                                                                                                                                                                               fused via
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Novel antigenic P5-like fimbrin subunit peptides used in vaccines against
                                                                                                                                                                                                                                                           comprising a non-typable Haemophilus influenzae fimbrin peptide fused via a linker peptide to a T-call epitope peptide. The chimeric peptide is used in immunogenic compositions which induce an immune response against non-typable Haemophilus influenzae. This sequence represents an example of a chimeric fimbrin/T-call epitope peptide and is designated LBI. The peptide comprises a 19 amino acid sequence corresponding to amino acids 117-1155 of the fimbrin protein, the linker sequence and amino acids 302 of the measles wirus fusion protein (a T-cell epitope)
                                                                                                                                      Synthetic chimeric fimbrin peptide - useful for vaccination against non-typable Haemophilus influenzae.
                                                                                                                                                                                                                                          to the manufacture of a synthetic chimeric peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Vaccine; non-typeable Haemophilus influenzae; ntHi; infection; chimeric protein; Haemophilus influenzae; PS-like fimbrin protein; lipoprotein D; LB1(f); immunogenic; antigenic; otitis media; sinusitis; conjunctivitis; lower respiratory tract infection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present invention describes antigenic P5-like fimbrin subunit peptides (LB1(f) peptides) of P5-like fimbrin proteins from various
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             94.3%; Score 99; DB 2; Length 40; 94.7%; Pred, No. 1e-09;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Measles virus fusion protein T-cell promiscuous epitope.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Lobet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (SMIK ) SMITHKLINE BEECHAM BIOLOGICALS. (OHIS ) UNIV OHIO STATE RES FOUND.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Dequesne G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ż
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Example 4; Page 38; 68pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 RSDYKFYEDANGTRDHKKG 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 RSDYKFYEAANGTRDHKKG 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAY79986 standard; peptide; 40
                                                                                                                                                                                                   Claim 4; Col 4; 16pp; English.
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                                                               Bakaletz LO;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity 94.7
                        (OHIS ) UNIV OHIO STATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cohen J,
                                                                                                                                                                                                                                          The invention relates
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Haemophilus influenza.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2000-116457/10
                                                                                                      WPI; 1999-044514/04
                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 40 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Measles virus
                                                               Kaumaya PTP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   W09964067-A2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 28-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          16-DEC-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
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Best Loca Matches

RESULT 12

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Gaps

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Vaccine comprising non-typable Haemophilus influenza fimbrin protein - useful in studying, preventing or reducing the severity of otitis media, also fimbrin protein and DNA.
                                                                                                              234. .249
/label= internal CNBr fragment
                                                                                                                                                                                                                                                                                                                                     Kolattukudy PE, Bakaletz LO, Sirakova T;
Fimbrin protein; vaccine; otitis media
                                                                                  22. .33
/label= amino terminus
                                                                  Location/Qualifiers
                                                                                                                                                                                                                                                                                                    (OHIS ) UNIV OHIO STATE RES FOUND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure; Fig 5; 45pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 RSDYKFYEAANGTRDHKKG 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              94.3%;
                                                                                                                                                                                                                                     94WO-US005477.
                                                                                                                                                                                                                                                                     93US-00065442.
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nes 18; Conservative
                               Haemophilus influenzae.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Haemophilus influenzae
                                                                                                                                                                                                                                                                                                                                                                       WPI; 1995-006359/01.
                                                                                                                                                                                                                                                                                                                                                                                      N-PSDB; AAQ78916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 359 AA;
                                                                                                                                                                                                                                     12-MAY-1994;
                                                                                                                                                                                                                                                                   18-MAY-1993;
                                                                                                                                                                  WO9426304-A1
                                                                                                                                                                                                    24-NOV-1994.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAY79993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                 Peptide
                                                                  Key
Region
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ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The invention relates to a synthetic chimaeric fimbrin peptide LB1 or LB2 comprises a first peptide unit derived from H. influenzae fimbrin, a second peptide unit containing a T cell epitope and a third linker peptide which connects the first peptide to the second. The chimaeric peptide which connects the first peptide to the second. The chimaeric peptide is useful for inducing an immune response in animals against non-typable Haemophilus influenzae (NTHi) and for preventing or reducing severity of oritis media. The present sequence is an H. influenzae fimbrin peptide/measles virus T cell epitope chimaeric peptide of the invention, LB1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Novel synthetic chimeric fimbrin peptide LB1 or LB2 comprising a first peptide unit, T cell epitope as second peptide unit and third linker peptide unit, useful for preventing or reducing severity of otitis media.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
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                                                                                                                                               H. influenzae fimbrin peptide/T cell epitope chimaera LB1
                                                                                                                                                                               Fimbrin; T cell epitope; vaccine; otitis media; auditory; antiinflammatory; LB1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 99; DB 7; Length 40; Pred. No. 1e-09;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Non-typable Haemophilus influenza (NTHi) fimbrin protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 8; SEQ ID NO 10; 15pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAR66294 standard; protein; 359 AA.
                                               ADC89661 standard, peptide, 40 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 RSDYKFYEAANGTRDHKKG 19
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                                                                                                                                                                                                                                                                                                                                                                                                      98US-00148711
                                                                                                                                                                                                                                                                                                                                                                       19-AUG-2002; 2002US-00223711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     94.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (revised)
(revised)
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bakaletz LO, Kaumaya PTP;
                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches 18; Conservative
                                                                                                                                                                                                                                                 Haemophilus influenzae.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         (KAUM/) KAUMAYA P T P.
                                                                                                                                                                                                                                                                                                                                                                                                                                         BAKA/) BAKALETZ L O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2003-810881/76.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                    US2003113344-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 40 AA;
                                                                                                                                                                                                                                                                     Measles virus.
                                                                                                                                                                                                                                                                                                                                                                                                        04-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          27-AUG-2003
25-MAR-2003
09-AUG-1995
                                                                                                                01-JAN-2004
                                                                                                                                                                                                                                                                                                                                    19-JUN-2003
                                                                                                                                                                                                                                   Chimeric.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAR66294;
                                                                                ADC89661;
              RESULT 14
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The fimbrin proteins from 15 randomly selected type b and non- typable clinical isolates of Haemophilus influences share common epitopes. Thus frimbrin isolated from non-typable Haemophilus influences 1128 strain is a particularly suitable immunogen to protect against the different non-typable HJ. influence that cause otitis media. Fimbrin protein is produced by culturing a transformed microbial host, pref. E.coli, Sporodoptera frugiperda or a mucosal pathogen. Fimbrin protein (FP) produced by this process is claimed. The FP protein migrates in plyacrylamide genes to a posn. equiv. to a mol. wt. of 25.5 kD kD. (Updated on 25-WAR-2003 to correct PM field.) (Updated on 25-WAR-2003 to correct PM field.) (Updated on 25-WAR-2003 to correct PM field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Vaccine; non-typeable Haemophilus influenzae; ntHi; infection; chimeric protein; Haemophilus influenzae; P5-like fimbrin protein; lipoprotein D; LB1(f); immunogenic; antigenic; otitis media; sinusitis; conjunctivitis; lower respiratory tract infection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gapa
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                                                                                                                                                                                                                                                                                                                                                                                            Score 99; DB 2; Length 359;
Pred. No. 1.4e-08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Mismatches
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WPI; 2000-116457/10.
                                                                                                                                                                                                                                                                                                                                       Sequence 19 AA;
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                                                                                                                                                                                                                                                                                                 Novel antigenic P5-like fimbrin subunit peptides used in vaccines against
Haemophilus influenza.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                otitis media, sinusitis, conjunctivitis, or lower respiratory tract infection. The peptides may also be used in vaccines against H. influenzae. Antibodies and probes from the present invention can be used for diagnosis of H. influenzae infection. AAY79955 to AAX79993, and AAZ91201 to AAX91252, represent sequences used in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                               The present invention describes antigenic P5-like fimbrin subunit peptides (LB1(f) peptides) of P5-like fimbrin proteins from various Haemophilus influenzae strains. The peptides are used for diagnosis, prevention, and treatment of Haemophilus influenzae infections, such as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Vaccine; non-typeable Haemophilus influenzae; ntHi; infection; chimeric protein; Hamphilus influenzae; PS-Hike fimbrin protein; lipoprotein D; LBH(f); immunogenic; antigenic; otitis media; sinusitis; conjunctivitis; lower respiratory tract infection.
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Pred. No. 1.9e-08;
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                                                                                                                                                                                                 Lobet Y;
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                                                                                                                                       BIOLOGICALS
                                                                                                                                                                                                   Dequesne G,
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                                                                                                                                     (SMIK ) SMITHKLINB BEECHAM BIOLOG:
(OHIS ) UNIV OHIO STATE RES FOUND
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                                                                                                                                                                                                                                                                                                                                                         Claim 14; Fig 5; 68pp; English.
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                                                          99WO-US011980
                                                                                                 98GB-00012613
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Best Local Similarity 94.7
Matches 18; Conservative
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                                                                                                                                                                                                                                         WPI; 2000-116457/10.
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                                                                                                                                                                                                                                                              N-PSDB; AAZ91252,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 464 AA;
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                  16-DEC-1999
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Novel antigenic P5-like fimbrin subunit peptides used in vaccines against
Haemophilus influenza.
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                                                                                                                                                                                      The present invention describes antigenic P5-like fimbrin subunit peptides (LB1(f) peptides) of P5-like fimbrin proteins from various Haemophilus influenzae strains. The peptides are used for diagnosis, prevention, and treatment of Haemophilus influenzae infections, such as otitis media, sinusitis, conjunctivitis, or lower respiratory tract infection. The peptides may also be used in vaccines against H. influenzae. Antibodies and probes from the present invention can be used for diagnosis of H. influenzae infection. AAX79955 to AAX7993, and AAX91201 to AAX91252, represent sequences used in the exemplification of the present invention
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 19;
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Pred. No. 1.5e-09;
1; Mismatches 1;
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                                                                                                                 Example 1; Page 29; 68pp; English
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89.5%;
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Matches 17; Conservative
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Novel antigenic P5-like fimbrin subunit peptides used in vaccines against
Haemophilus influenza.
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                                                                                                                                                                                          Vaccine, non-typeable Haemophilus influenzae; ntHi; infection; chimeric protein, Haemophilus influenzae; P5-like fimbrin protein; lipoprotein D; LBI(f); immunogenic; antigenic; otitis media; sinusitis; conjunctivitis; lower respiratory tract infection.
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Pred. No. 3.3e-09;
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                                        AAY79956 standard; peptide; 19 AA.
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                                                                                                                  (first entry)
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nes 17; Conservative
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                                                                                                                  15-MAY-2000
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                                                                               AAY79956;
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Best Local
RESULT 20
AAY79956
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  otitis media, sinusitis, conjunctivitis, or lower respiratory tract infection. The peptides may also be used in vaccines against H. influenzae. Antibodies and probes from the present invention can be used for diagnosis of H. influenzae infection. AAY79955 to AAY79993, and AAZ91201 to AAZ91252, represent sequences used in the exemplification of the present invention
  represent sequences used in the exemplification of
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                                                                                                                                        Gaps
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chimeric protein; Haemophilus influenzae; P5-like fimbrin protein;
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                                                                                                Score 95; DB 3; Length 19;
Pred. No. 2.2e-09;
); Mismatches 1; Indels
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RSDYKFYEDENGTRDHKKG 19
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0
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                                                                                                                                                                             1 RSDYKFYEAANGTRDHKK 18
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                                                                                                  90.58;
                                                                                                                                                                                                        RSDYKFYEVANGTRDHKK
                                                                                                                      94.48;
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Matches 17; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Haemophilus influenzae.
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AAZ91201 to AAZ91252,
the present invention
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                                                                                                                      Local Similarity
                                                           Sequence 19 AA;
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Haemophilus influenzae.

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Length 19; 1; Indels

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Novel antigenic P5-like fimbrin subunit peptides used in vaccines against
Haemophilus influenza.
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peptide is useful for treating a non-typable Haemophilus influenzae (NTH1) infection and otitis media. The synthetic peptides do not require tedious purification techniques persent sequence represents the amino acid sequence of H. influenzae fimbrin subunit peptide #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Vaccine, non-typeable Haemophilus influenzae, ntHi; infection; chimeric protein; Haemophilus influenzae; PS-like fimbrin protein; lipoprotein D; LB1(f); immunogenic; antigenic; otitis media; sinusitis; onjunctivitis; lower respiratory tract infection.
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Pred. No. 1.1e-08;
1; Mismatches 1;
                                                                                                                                              4.6e-09;
                                                                                                                             DB 6;
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                                                                                                                             Score 93;
Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Example 1; Page 29; 68pp; English.
                                                                                                                                                                                                                                                                                                                                AAY79967 standard; peptide; 19 AA
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                                                                                                                               88.6%;
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                                                                                                                                                                   17; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     the present invention
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                                                                                                                           Query Match
Best Local Similarity
Matches 17; Conserv
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                                                                                           Sequence 18 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Bakaletz LO,
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                                                                                                                                                                                                                                                                                                                                                                                     fused via
                                                                                                                                                                                                                                                                                                                                                                The invention relates to the manufacture of a synthetic chimeric peptide comprising a non-typable Haemophilus influenzae fimbrin peptide fused via a linker peptide to a T-cell epitope peptide. The chimeric peptide is used in immunogenic compositions which induce an immune response against non-typable Haemophilus influenzae. This sequence represents an example of a H. influenzae fimbrin peptide used to generate the chimeric peptide
                                                                                                                                                                                                                                                                            Synthetic chimeric fimbrin peptide - useful for vaccination against non-
typable Haemophilus influenzae.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         chimeric fimbrin peptide, useful for treating Haemophilus
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                                                                                             95US-00460502
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.l Similarity 94.4%;
17; Conservative
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                                                                                                                                                                                                      Bakaletz LO;
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Best Local Similarity
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                                                                                                                               02-JUN-1995;
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                                                                                           02-JUN-1995;
                                                                                                                                                                                                      Kaumaya PTP,
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Novel antigenic P5-like fimbrin subunit peptides used in vaccines against
Haemophilus influenza.
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lipoprotein D; LB1(f); immunogenic; antigenic; otitis media; sinusitis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The present invention describes antigenic P5-like fimbrin subunit peptides (LB1(f) peptides) of P5-like fimbrin proteins from various Haemophilus influenzae strains. The peptides are used for diagnosis, prevention, and treatment of Haemophilus influenzae infections, such
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                  conjunctivitis; lower respiratory tract infection
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                                                       Haemophilus influenzae
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Novel antigenic P5-like fimbrin subunit peptides used in vaccines against Haemophilus influenza.
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                                                                                                                                                                                                                                 Vaccine, non-typeable Haemophilus influenzae, ntHi, infection, chimeric protein, Haemophilus influenzae, PS-like fimbrin protein, ilipoprotein D, LBJ(f), immunogenic, antigenic, otitis media; sinusitis, conjunctivitis, lower respiratory tract infection.
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                                                                                                                                                                                            Non-typeable H. influenzae group 1 LB1(f) peptide N226NP.
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Pred. No. 1.1e-08;
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                                                                       AAY79968 standard; peptide; 19 AA
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                                                                                                                                                                                                                                                                                                                                   Haemophilus influenzae
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Novel antigenic PS-like fimbrin subunit peptides used in vaccines against
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    otitis media, sinusitis, conjunctivitis, or lower respiratory tract infection. The peptides may also be used in vaccines against H. influenzae. Antibodies and probes from the present invention can be used for diagnosis of H. influenzae infection. AAY79955 to AAX79993, and AAZ91201 to AAZ91252, represent sequences used in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Vaccine; non-typeable Haemophilus influenzae; ntHi; infection; chimeric protein; Haemophilus influenzae; P5-like fimbrin protein; lipoprotein D; LB1(f); immunogenic; antigenic; otitis media; sinusitis; conjunctivitis; lower respiratory tract infection.
and treatment of Haemophilus influenzae infections,
                                                                                                                                                                                                           Score 89; DB 3; Length 19;
Pred. No. 2.5e-08;
Mismatches 2; Indels
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Pred. No. 3.7e-08;
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88.9%;
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88.9%;
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Matches 16; Conservative
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Best Local Similarity
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                                                                                                                             Novel antigenic P5-like fimbrin subunit peptides used in vaccines against
Haemophilus influenza.
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                                                                                                                                                                                                                          The present invention describes antigenic P5-like fimbrin subunit peptides (LB1(f) peptides) of P5-like fimbrin proteins from various Haemophilus influenzae strains. The peptides are used for diagnosis, prevention, and treatment of Haemophilus influenzae infections, such as otitis media, sinusitis, conjunctivitis, or lower respiratory tract influenzae. Antibodies may also be used in vaccines against H. influenzae. Antibodies and probes from the present invention can be used for diagnosis of H. influenzae infection. AAV79955 to AAV79993, and AAS91201 to AAZ91221, represent sequences used in the exemplification of the present invention
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Non-typeable H. influenzae group 1 LB1(f) peptide N10559RM.
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                                            Lobet Y;
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                                              Dequesne G,
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  (OHIS ) UNIV OHIO STATE RES FOUND
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                                              Cohen J,
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                                                                                      WPI; 2000-116457/10
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                                              Bakaletz LO,
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Novel antigenic P5-like fimbrin subunit peptides used in vaccines against
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                Vaccine; non-typeable Haemophilus influenzae; ntHi; infection; chimeric protein; Haemophilus influenzae; P5-like fimbrin protein; lipoprotein D; LBI(f); immunogenic; antigenic; otitis media; sinusitis; conjunctivitis; lower respiratory tract infection.
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Pred. No. 8.3e-08;
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83.3%;
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Matches 15; Conservative
                                                                                                                     Haemophilus influenzae
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AAY79992
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                                                                                                                                                                                                                                                                                           Vaccine; non-typeable Haemophilus influenzae; ntHi; infection; chimeric protein; Hamophilus influenzae; PS-like fimbrin protein; lipoprotein D; LB1(f); immunogenic; antigenic; otitis media; sinusitis; conjunctivitis; lower respiratory tract infection.
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                                                                                                                                                                                                                                                      Non-typeable H. influenzae group 1 LB1(f) peptide NTHI-484.
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RSDYKFYNDANGTRDHKK 18
                                                                                                                                     AAY79965 standard; peptide; 19
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RSDYKFYEAANGTRDHKK 18
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Matches 16; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                              Haemophilus influenzae
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                                                                                                                                                                        AAY79965;
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AAY79971
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Haemophilus influenza.
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                                                                                                                                      the present invention
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                                                                                                                                                                                       Local Similarity
Les 16, Conserv
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                                                                                                                                                                                                                                                                                                                   AAY79969;
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                                                                                                                                      Novel antigenic P5-like fimbrin subunit peptides used in vaccines against
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Novel antigenic P5-like fimbrin subunit peptides used in vaccines against
                                                                                                                                                                                     The present invention describes antigenic P5-like fimbrin subunit peptides (LB1(f) peptides) of P5-like fimbrin proteins from various Haemophilus influenzae strains. The peptides are used for diagnosis, prevention, and treatment of Haemophilus influenzae infections, such as otitis media, sinusitis, conjunctivitis, or lower respiratory tract infection. The peptides may also be used in vaccines against H. influenzae. Antibodies and probes from the present invention can be used for diagnosis of H. influenzae infection. ANT79955 to ANT79933, and ANZ91201 to AAZ91252, represent sequences used in the exemplification of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Vaccine; non-typeable Haemophilus influenzae; ntHi; infection; chimeric protein; Haemophilus influenzae; PS-like fimbrin protein; lipoprotein D; LBI(f); immunogenic; antiqenic; otitis media; sinusitis; conjunctivitis; lower respiratory tract infection.
                                                                                                                                                                                                                                                                                                                                                  Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Non-typeable H. influenzae group 1 LB1(f) peptide NTHI-567.
                                                                                                                                                                                                                                                                                                                            81.0%; Score 85; DB 3; Length 19;
84.2%; Pred. No. 1.2e-07;
ive 0; Mismatches 3; Indels
                                                                                             Lobet Y;
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                                                              (SMIK ) SMITHKLINE BEECHAM BIOLOGICALS. (OHIS ) UNIV OHIO STATE RES FOUND.
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                                                                                             Dequesne G,
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                                                                                                                                                                      Disclosure; Page 46; 68pp; English
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                      99WO-US011980
                                          98GB-00012613
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(OHIS ) UNIV OHIO STATE DEC
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hes 16, Conservative
                                                                                             Bakaletz LO, Cohen J,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Haemophilus influenzae
                                                                                                                                                Haemophilus influenza.
                                                                                                                                                                                                                                                                                     the present invention
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                                                                                                                WPI; 2000-116457/10.
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                     28-MAY-1999;
                                          11-JUN-1998;
                                                                                                                                                                                                                                                                                                          Sequence 19
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   16-DEC-1999
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Matches
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                                                         The present invention describes antigenic P5-like fimbrin subunit peptides (LB1(f) peptides) of P5-like fimbrin proteins from various Haemophilus influenzae strains. The peptides are used for diagnosis, prevention, and treatment of Haemophilus influenzae infections, such as otitis media, sinusitis, conjunctivitis, or lower respiratory tract infection. The peptides may also be used in vaccines against H. influenzae, Antibodies and probes from the present invention can be used for diagnosis of H. influenzae infection. AAY19955 to AAY19931, and AAZ91201 to AAZ91252, represent sequences used in the exemplification of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Vaccine; non-typeable Haemophilus influenzae; ntHi; infection; chimeric protein; Haemophilus influenzae; P5-like fimbrin protein; lipoprotein D; LB1(f); immunogenic; antigenic; otitis media; sinusitis; conjunctivitis; lower respiratory tract infection.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 85; DB 3; 1
Pred. No. 1.2e-07;
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Example 1; Page 29; 68pp; English.
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84.2%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Haemophilus influenzae.
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RESULT 34 AAR85450

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Novel synthetic chimeric fimbrin peptide LB1 or LB2 comprising a first peptide unit, T cell epitope as second peptide unit and third linker peptide unit, useful for preventing or reducing severity of otitis media.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention relates to a synthetic chimaeric fimbrin peptide LBI or lacomprises a first peptide unit derived from H. influenzae fimbrin, a second peptide unit containing a T cell epitope and a third linker peptide which connects the first peptide to the second. The chimaeric peptide is useful for inducing an immune response in animals against ntypable Haemophilus influenzae (NTHi) and for preventing or reducing adherence of NTHi to host cells thereby preventing or reducing the severity of cities media. The present sequence is an H. influenzae fimbrin peptide for use in the chimaeric peptides of the invention.
                                                                                                                                                 Fimbrin; T cell epitope; vaccine; otitis media; auditory;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Non-typeable H. influenzae group 1 LB1(f) peptide N250NP.
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Pred. No. 2.6e-07;
1; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 1; SEQ ID NO 1; 15pp; English.
ADC89652 standard; peptide; 18.AA.
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                                                                                                           H. influenzae fimbrin peptide #1.
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                                                                         (first entry)
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Best Local Similarity 83.3
Matches 15; Conservative
                                                                                                                                                                                                      Haemophilus influenzae.
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(KAUM/) KAUMAYA P T P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2003-810881/76.
                                                                                                                                                                    antiinflammatory
                                                                                                                                                                                                                                              US2003113344-A1.
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                                                                         01-JAN-2004
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                                   ADC89652;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Nontypable H. influenzae HI outer membrane protein P5 was isolated by extraction of the outer membrane with detergents and cation-exchange chromatography. P5 (or its peptide fragments) are used in vaccines for prevention of H. influenzae infections implicated in otitis media, sinusitis and chronic pulmonary obstructive disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Purified H.influenzae PS outer membrane protein - used for preventing reducing susceptibility to or treating H.influenzae infections.
                                                                                           Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                   P5 outer membrane protein; vaccine; otitis media; sinusitis; chronic pulmonary obstructive disease.
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84.2%; Pred. No. 5.5e-06;
ive 0; Mismatches 3; Indels
                                                   Score 84; DB 3; Length 19;
Pred. No. 1.9e-07;
2; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                               Nontypable H. influenzae PS protein.
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                                                                                                                                                                                                                                                                AAR85450 standard; protein; 338 AA.
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                                                                                                                               1 RSDYKFYEAANGTRDHKKG 19
                                                                                                                                                 1 RSDYKFYEDANGTRERKRG 19
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                                                 Query Match
Best Local Similarity 78.9%;
Matches 15; Conservative 5
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Best Local Similarity 84.2
Matches 16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Haemophilus influenzae.
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               Sequence 19 AA;
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SOCCOCCESSOR

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Gaps

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WO9964067-A2

RESULT 35 ADC89652

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9905-0130449P

9905-0130649P

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                                                                                                                                Novel antigenic P5-like fimbrin subunit peptides used in vaccines against
Haemophilus influenza.
                                                                                                                                                                               The present invention describes antigenic P5-like fimbrin subunit peptides (LB1(f) peptides) of P5-like fimbrin proteins from various Hamophilus influenzae strains. The peptides are used for diagnosis, prevention, and treatment of Haemophilus influenzae infections, such as otitis media, sinusitis, conjunctivitis, or lower respiratory tract infection. The peptides may also be used in vaccines against H. influenzae. Antibodies and probes from the present invention can be used for diagnosis of H. influenzae infection. AAY79955 to AAY7993, and AAZ91201 to AAZ91252, represent sequences used in the exemplification of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Protein identification; signal transduction pathway; metabolic pathway; hybridisation assay; genetic mapping; gene expression control; promoter; termination sequence.
                                                                                                                                                                                                                                                                                                                                ;
                                                                                                                                                                                                                                                                                                            76.2%; Score 80; DB 3; Length 19; 78.9%; Pred. No. 9.4e-07; ive 1; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Arabidopsis thaliana protein fragment SEQ ID NO: 57678.
                                                                                              Bakaletz LO, Cohen J, Dequesne G, Lobet Y;
                                                                (SMIK ) SMITHKLINE BEECHAM BIOLOGICALS. (OHIS ) UNIV OHIO STATE RES FOUND.
                                                                                                                                                                                                                                                                                                                                                                                                                    AAG45896 standard; protein; 311 AA
                                                                                                                                                                Example 1; Page 29; 68pp; English.
                                                                                                                                                                                                                                                                                                                                                              1 RSDYKRYEEANGTRNHDKG 19
                                                                                                                                                                                                                                                                                                                                                   1 RSDYKFYEAANGTRDHKKG 19
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990S-0123180P.
990S-0125788P.
990S-0125788P.
990S-012626P.
990S-0127462P.
990S-0128234P.
990S-0128234P.
                                               98GB-00012613.
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                             99WO-US011980
                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 78.9
Matches 15, Conservative
                                                                                                                                                                                                                                                                       the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Arabidopsis thaliana
                                                                                                                WPI; 2000-116457/10.
                                                                                                                                                                                                                                                                                          Sequence 19 AA;
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09-MAR-1999;
                            28-MAY-1999;
                                               11-JUN-1998;
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          16-DEC-1999
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Protein identification; signal transduction pathway; metabolic pathway; hybridisation assay; genetic mapping; gene expression control; promoter;
                                                                                                                                                                                                                                                         Length 311;
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                                                                                                                                                                                                                                                            DB 3;
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Mismatches
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                       AAG34578 standard; protein; 343
                                                                                                                                                                                                                                                                                                 2 SDYKFYEAANGTRDHKKG 19
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119 SDEKLYKGIHGYTDHKAG 136
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990S-012674P.
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50.0%;
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                                                                                                                                                                                                                                                                               9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              termination sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Arabidopsis thaliana
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08-APR-1999;
16-APR-1999;
19-APR-1999;
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990S-0144335P

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1-AUG-1999;
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Gaps

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12;
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Pred. No.
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                                                                                                                                                                                                                         Query Match
Best Local Similarity 50.0%,
Local 9; Conservative
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22-0CT-1999;
22-0CT-1999;
25-0CT-1999;
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RR 24-JUL-1999; 9918-0145376 PR 27-JUL-1999; 9918-0145313 PR 27-JUL-1999; 9918-014638 PR 02-AUC-1999; 9918-014638 PR 02-AUC-1999; 9918-014638 PR 02-AUC-1999; 9918-014730 PR 12-AUC-1999; 9918-014730 PR 13-AUC-1999; 9918-014730 PR 13-AUC-1999; 9918-014730 PR 13-AUC-1999; 9918-014730 PR 12-AUC-1999; 9918-0149730 PR 12-AUC-1999; 9918-0149730 PR 12-AUC-1999; 9918-0149720 PR 12-AUC-1999; 9918-0151030 PR 13-AUC-1999; 9918-0152030 PR 13
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                                                                                                                                                                                                                                     / Match 45.7%; Score 48; DB 3; Length 361; Local Similarity 50.0%; Pred. No. 13; onservative 2; Mismatches 7; Indels
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169 SDEKLYKGIHGYTDHKAG 186
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99US-0161361P-
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PR 28-OCT-1999; 99US-0161992P.
PR 29-OCT-1999; 99US-0161942P.

Query Match
Best Local Similarity 50.0%; Pred. No. 13;
Matches 9; Conservative 2; Mismatches 7; Indels 0; Gaps

Qy 2 SDYKFYEAMGTRDHKKG 19
Db 169 SDEKLYKGHGYTDHKAG 186
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Search completed: June 17, 2005, 16:10:22 Job time : 68.8904 secs